

REMARKS

In response to the Office Action mailed February 13, 2004, Applicants amend their application and request reconsideration. No claims are added or cancelled so that claims 1-8 remain pending.

Claims 6-8 are allowed.

The Examiner requested a more descriptive title and a substitute title is supplied.

The invention concerns an apparatus having a heating member, an upstream temperature sensor, a downstream temperature sensor, and a circuit. The temperature sensors are respectively located at an upstream side and a downstream side of the heating member. When the apparatus measures the flow of a fluid, the circuit controls power supplied to the heating member in order to maintain a fixed average of the temperatures measured by the upstream and downstream temperature sensors, the first and second temperatures.

In the invention, and in the illustrated embodiment, the apparatus is related to measuring the flow of a fluid using a measured temperature difference. The temperature difference is the difference between the temperature at the upstream temperature sensor member and the temperature at the downstream temperature sensor. The upstream temperature sensor measures temperature upstream of the heating member, and the downstream temperature sensor measures temperature of downstream of the heating member. The temperature of the heating member, located between the two temperature sensors, is controlled by the power supplied from the circuit. When the apparatus measures the flow of a fluid, the circuit controls the power supplied to the heating member in order to maintain the average of the temperatures respectively measured by the first and second temperature sensors at a fixed temperature. The average temperature can be controlled in this way because each temperature changes in response to the flow of the fluid.

In this Amendment claim 1 is amended for clarity by eliminating an unnecessary word that may have led to confusion.

Claims 1-5 have been rejected as anticipated by Kawai et al. (US 5,965,811 hereinafter Kawai). This rejection is respectfully traversed.

The rejection is defective because Kawai does not describe at least one of the elements asserted to be described in that patent. It is apparent that the Official Action merely recites the elements of claim 1 and asserts that Kawai describes each of them. The Examiner asserted that the circuit of claim 1 was disclosed in Kawai (column 6, line 65-column 7, line 15). Applicant disagrees.

Kawai discloses a control circuit, that is not even shown, that supplies a heating current to the heating member. The current is controlled so that the temperature of the

heating member is kept higher, by, for example, 200 °C, than the temperature of the flat substrate on which the temperature sensor located. In other words, the temperature of heating member described in Kawai is controlled by a control circuit in order to be kept at a fixed temperature relative to the temperature of the substrate.

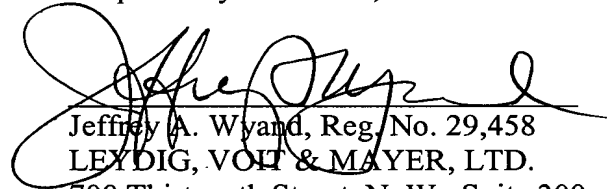
The Kawai apparatus measures the flow of fluid by measuring the temperatures of the two temperature sensors, and the control circuit keeps the temperature of the heating member at a fixed temperature relative to the substrate. On the other hand, in the invention, the circuit controls the power supplied to the heating member and keeps the average of the temperatures of the two temperature sensors constant. Kawai discloses no such function and no control circuit that could achieve that function.

Since nothing in Kawai shows, teaches, or suggests the average temperature feature of claim 1, Kawai cannot anticipate any of claims 1-5. Therefore, Applicant respectfully requests the Examiner withdraw the rejection.

Claim 2-5 depend from claim 1 and recite additional features. Claims 2-5 cannot be anticipated by Kawai because claim 1 is not anticipated by Kawai.

Reconsideration and allowance of all of claims 1-8 are earnestly solicited.

Respectfully submitted,



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